

REMARKS

Thorough examination and careful review of the application by the Examiner is noted and appreciated.

Claims 1-10 are pending in the application. Claims 1-10 stand rejected.

Claims 1 and 3 have been amended to correct typographical errors.

Objection To The Drawings

Figures 3 and 5B are objected to for containing reference numerals that are not mentioned in the specification, or conversely, reference numerals mentioned in the specification are not shown in the figures.

Figures 3 and 5B have been amended to alleviate the Examiner's objections. A redlined copy is hereby submitted for the Examiner's approval.

Objection to the Claims

Claim 3 is objected to for containing typographical errors. Claim 3 has been amended to alleviate the Examiner's objections.

Claim Rejections Under 35 USC §112

Claims 1-10 are rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Claims 1 and 3 have been amended to alleviate the Examiner's rejections. A reconsideration for allowance of claims 1-10 is respectfully requested of the Examiner.

Claim Rejections Under 35 USC §103

Claims 1-10 are rejected under 35 USC §103(a) as being unpatentable over Rosenquist '736. It is contended that Rosenquist discloses a wafer cassette pod 20 and a position compensation assembly 122 (position sensing device), as shown in Fig. 5 that are substantially similar to that disclosed in the present invention. The Examiner specifically pointed out that Rosenquist teaches "a

plunger 124 (finger) protruding beyond an end surface of said port door 104 to, in a broad sense, **push** said cassette pod shell 24 (body) **away** from a load port of a process machine when said cassette pod shell 24 (body) is not properly positioned on said load port". (See page 5, first paragraph, Office Action 10/21/03)

The rejection of claims 1-10 under 35 USC §103(a) based on Rosenquist is respectfully traversed.

The present invention, as clearly recited in independent claim 1:

"Claim 1. A wafer cassette pod equipped with a position sensing device comprising:

a cassette pod body formed of ...;

a rear opening in said cassette pod body formed by ...; and

at least two spring-loaded position sensing devices ... with a finger protruding beyond an end surface of said side panel **to push said cassette pod body away from a loadport of a process machine when said cassette pod body is not properly positioned on said loadport.**"

The Applicants respectfully submit that Rosenquist does not teach spring-loaded position sensing devices that are equipped with a finger for pushing away the cassette pod body from a load port when the cassette pod body is not properly positioned on the load port.

Rosenquist '736 discloses a SMIF load port assembly including a port door **position compensation assembly** capable of dynamically adjusting a relative spacing between a front surface of a port door and a front surface of a pod door loaded onto the load port assembly so as to compensate for any improper positioning of the front surface of the pod. (See Abstract.) As shown by Rosenquist in Fig. 5 and at col. 6, lines 34-65, col. 7, lines 2-4, and 60-67:

"... a position compensation assembly 122 for indicating a necessary adjustment of the port door position while in the load port so as to adjust for any improper positioning of the front surface of the pod door 22 on the load port assembly. Position compensation assembly 122 includes a plunger 124 having a back end 128 mounted within the port door 104 and a front end 126 extending out of port door 104. ... As the **pod advance plate 114** advances the pod 20 toward the port door 104, the front surface 31 of pod door 22 contacts front end 126 of

plunger 124 to move the plunger 124 rearward, i.e., further into the port door 104. The plunger 125 is biased as by a spring 127 into its extended position so that in the absence of a force on a front end 126 of plunger 124, the plunger 124 occupies its fully extended position protruding past the front surface 108 of port door 104."

As clearly disclosed by Rosenquist in the above paragraph, the only moving mechanical part for moving the pod 20 relative to the port door 104 is the pod advance plate 114. The position compensation assembly 122 merely measures the distance by the movement of the plunger 124 and the electrical circuit (shown in Fig. 5) consisting of a volt meter 130 and a potentiometer 132. The plunger 126 of the position compensation assembly 122 cannot mechanically move the cassette pod away from the pod door. Instead, only the pod advance plate 114 can move the pod.

To the contrary, the present invention finger assembly that is associated with the position sensing device mechanically pushes the cassette pod away from the load port of a process machine, as clearly recited in independent claim 1. This operation

is further explained in detail in the present invention, page 9, paragraph 0025 and paragraph 0026:

0025 The present invention discloses a wafer cassette pod that is equipped with a position sensing device such that the accidental drop of a cassette pod door onto wafers stored in the cassette pod can be avoided. When the wafer cassette pod is not properly positioned on a loadport, the spring-loaded position sensing device through an exposed finger pushes against the loadport such that the cassette pod separates away from the opening entrance of the loadport to avoid wafer breakage by a falling cassette pod door.

0026 The wafer cassette pod body is equipped with at least two position sensing devices mounted in the side panels. Preferably, two position sensing devices are mounted in each one of the side panels in an up and down manner so that one position sensing device is mounted at near the bottom of the sidewall, while the other is mounted at near the top of the sidewall. The position sensing device can be constructed by a case, a finger protruding from the case, and at least one spring pushing the finger outwardly away from the case.

The operation of the present invention position sensing device is further explained at page 12, paragraph 0032:

0032 As shown in Figure 5A and 5B, the spring member 74, while sliding in a track (not shown) is mounted to at least one spring 86 acting against an inner surface 88 of the case 72 when the finger member 74 is pushed in, or in a fully recessed position. It should be noted that while, as shown in Figures 5A and 5B, three springs 86 are utilized, any other suitable number of springs such as one or two may also be used. The spring 86 should have a spring constant that is sufficiently large such that even at one spring, the spring constant is sufficiently to push a fully loaded wafer cassette pod (for instance a wafer cassette pod loaded with twenty-five 200 mm wafers) away from the opening of the loadport. Any accidental falling of a cassette door thus will not damage any wafers stored in the wafer cassette pod.

The rejection of claims 1-10 under 35 USC §103(a) based on Rosenquist is respectfully traversed. A reconsideration for allowance of these claims is respectfully requested of the Examiner.

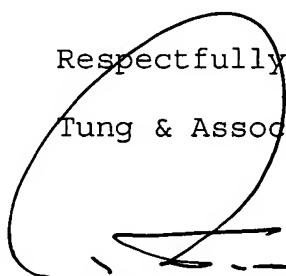
U.S.S.N. 09/240,460

Based on the foregoing, the Applicants respectfully submit that all of the pending claims, i.e. claims 1-10, are now in condition for allowance. Such favorable action by the Examiner at an early date is respectfully solicited.

In the event that the present invention is not in a condition for allowance for any other reasons, the Examiner is respectfully invited to call the Applicants' representative at his Bloomfield Hills, Michigan office at (248) 540-4040 such that necessary action may be taken to place the application in a condition for allowance.

Respectfully submitted,

Tung & Associates

A handwritten signature in black ink, appearing to be 'Randy W. Tung', is written over a horizontal line. The signature is enclosed within a large, hand-drawn oval.

Randy W. Tung

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